

# EDS-P308 Series

**8-port unmanaged Ethernet switches with 4 IEEE 802.3af PoE ports**



- > 4 IEEE 802.3af compliant PoE and Ethernet combo ports
- > Up to 15.4 watts at 48 VDC per PoE port
- > Intelligent power consumption detection and classification
- > Redundant dual VDC power inputs
- > -40 to 75°C operating temperature range (T models)



## Introduction

The EDS-P308 switches are smart, 8-port, unmanaged Ethernet switches supporting PoE (Power-over-Ethernet) on ports 1 to 4. The switches are classified as power source equipment (PSE), and when used in this way, the EDS-P308 switches enable centralization of the power supply and provide up to 15.4 watts of power per port. The switches can be used to power IEEE 802.3af compliant powered

devices (PD), eliminating the need for additional wiring, and support IEEE 802.3/802.3u/802.3x with 10/100M, full/half-duplex, MDI/MDI-X auto-sensing to provide an economical solution for your industrial Ethernet network. In addition, the built-in relay warning function alerts network engineers when power failures or port breaks occur.

## Specifications

### Technology

#### Standards:

IEEE 802.3af for Power-over-Ethernet

IEEE 802.3 for 10BaseT

IEEE 802.3u for 100BaseT(X)

IEEE 802.3x for Flow Control

**Processing Type:** Store and Forward

### Switch Properties

**MAC Table Size:** 1 K

**Packet Buffer Size:** 512 kbit

### Interface

**RJ45 Ports:** 10/100BaseT(X) auto negotiation speed, Full/Half duplex mode, and auto MDI/MDI-X connection

**Fiber Ports:** 100BaseFX ports (SC connector)

**PoE Pinout:** V+, V+, V-, V- for pin 1, 2, 3, 6 (Endspan, MDI Alternative A)

**DIP Switches:** Port break alarm mask

**Alarm Contact:** 1 relay output with current carrying capacity of 0.5 A @ 48 VDC

### Optical Fiber

		100BaseFX		
		Multi-Mode		Single-Mode
Fiber Cable Type		OM1	50/125 μm 800 MHz*km	G.652
Typical Distance		4 km	5 km	40 km
Wave-length	Typical (nm)	1300		1310
	TX Range (nm)	1260 to 1360		1280 to 1340
	RX Range (nm)	1100 to 1600		1100 to 1600
Optical Power	TX Range (dBm)	-10 to -20		0 to -5
	RX Range (dBm)	-3 to -32		-3 to -34
	Link Budget (dB)	12		29
	Dispersion Penalty (dB)	3		1

**Note:** When connecting a single-mode fiber transceiver, we recommend using an attenuator to prevent damage caused by excessive optical power.  
**Note:** Compute the "typical distance" of a specific fiber transceiver as follows: Link budget (dB) > dispersion penalty (dB) + total link loss (dB).

### Power Requirements

**Input Voltage:** 48 VDC, redundant dual inputs

**Operating Voltage:** 44 to 57 VDC

**Input Current:** 1.47 A @ 48 VDC

**Overload Current Protection:** 2.5 A @ 48 VDC

**Connection:** 1 removable 6-contact terminal block

**Reverse Polarity Protection:** Present

**Power Consumption:** Max. 9.16 W full loading without PDs' consumption

**Power Budget:** Max. 61.4 W for total PDs' consumption  
 Max. 15.4 W for each PoE port

### Physical Characteristics

**Housing:** Metal  
**IP Rating:** IP30 protection  
**Dimensions:** 53.6 × 135 × 105 mm (2.11 x 5.31 x 4.13 in)  
**Weight:** 840 g (1.86 lb)  
**Installation:** DIN-rail mounting, wall mounting (with optional kit)

### Environmental Limits

**Operating Temperature:**  
 Standard Models: 0 to 60°C (32 to 140°F)  
 Wide Temp. Models: -40 to 75°C (-40 to 167°F)  
**Storage Temperature:** -40 to 85°C (-40 to 185°F)  
**Ambient Relative Humidity:** 5 to 95% (non-condensing)

### Standards and Certifications

**Safety:** UL 508  
**EMC:** EN 55022/24  
**EMI:** CISPR 22, FCC Part 15B Class A

### EMS:

IEC 61000-4-2 ESD: Contact: 6 kV; Air: 8 kV  
 IEC 61000-4-3 RS: 80 MHz to 1 GHz: 10 V/m  
 IEC 61000-4-4 EFT: Power: 4 kV; Signal: 2 kV  
 IEC 61000-4-5 Surge: Power: 1 kV; Signal: 1 kV  
 IEC 61000-4-6 CS: Signal: 10 V  
 IEC 61000-4-8

**Marine:** DNV, GL, LR, ABS, NK

**Shock:** IEC 60068-2-27

**Freefall:** IEC 60068-2-32

**Vibration:** IEC 60068-2-6

*Note: Please check Moxa's website for the most up-to-date certification status.*

**MTBF** (mean time between failures)

**Time:** 406,194 hrs

**Standard:** Telcordia (Bellcore), GB

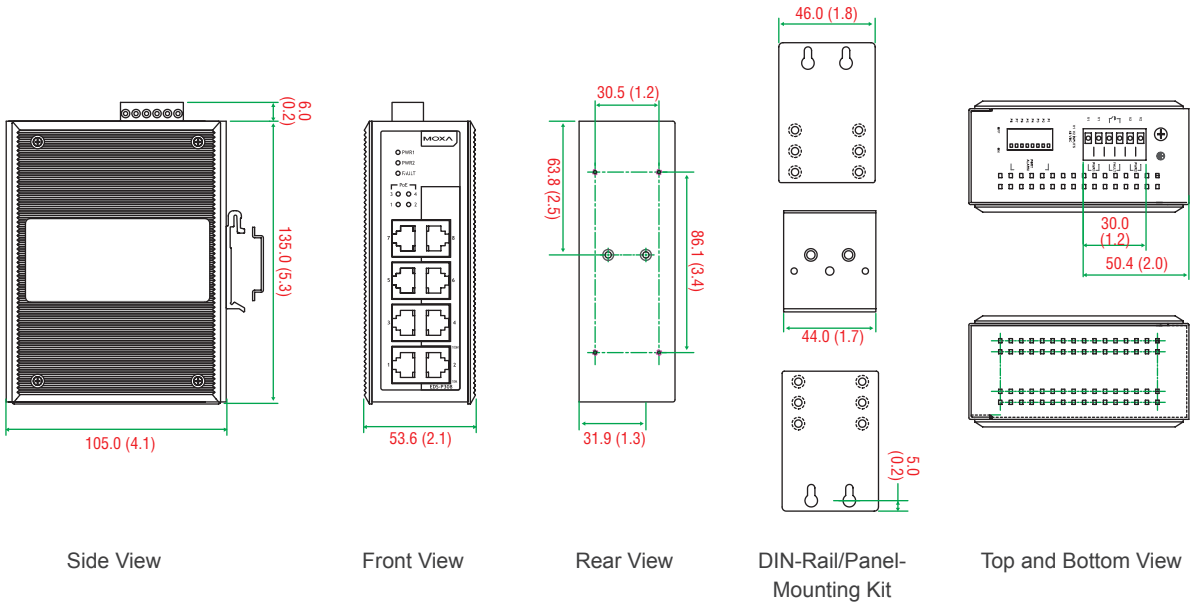
### Warranty

**Warranty Period:** 5 years

**Details:** See [www.moxa.com/warranty](http://www.moxa.com/warranty)

### Dimensions

Unit: mm (inch)



### Ordering Information

Available Models		Port Interface			
Standard Temperature (0 to 60°C)	Wide Temperature (-40 to 75°C)	10/100BaseT(X)	PoE, 10/100BaseT(X)	100BaseFX	
				Multit-Mode, SC Connector	Single-Mode, SC Connector
EDS-P308	EDS-P308-T	4	4	-	-
EDS-P308-M-SC	EDS-P308-M-SC-T	3	4	1	-
EDS-P308-S-SC	EDS-P308-S-SC-T	3	4	-	1
EDS-P308-MM-SC	EDS-P308-MM-SC-T	2	4	2	-
EDS-P308-SS-SC	EDS-P308-SS-SC-T	2	4	-	2

### Optional Accessories (can be purchased separately)

**DR-75-48/120-48:** 75/120 W DIN-rail 48 VDC power supplies  
**DRP-240-48:** 240 W DIN-rail 48 VDC power supplies  
**RK-4U:** 4U-high 19-inch rack-mounting kit  
**WK-46:** Wall-mounting kit, 2 plates with 8 screws

### Package Checklist

- EDS-P308 switch
- Protective caps for unused ports
- Hardware installation guide (printed)
- Warranty card